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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,023	07/30/2003	Manish Kurhekar	JP920030089	7779

7590   08/24/2006

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EXAMINER
TECKLU, ISAAC TUKU

ART UNIT	PAPER NUMBER
2192	

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 July 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-28</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-28</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some *   c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>07/30/2003</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to the application filed on 07/30/2003.

2.   Claims 1- 28 have been examined.

Oath/Declaration

3.   The office acknowledges receipt of a properly signed oath/declaration filed on

07/30/2003.

Specification

4.   The disclosure is objected to because it contains an embedded hyperlink

http://upc.nersc.gov on page 2, line 9. Applicant is required to delete the embedded hyperlink

and/or other form of browser-executable code. See MPEP § 608.01.

Claim Objections

5.   Claim 6 is objected to because of the following informalities: Claim 6 recites "affininty"

instead of affinity. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

7.   Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for

failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

        Claim 1 recites the limitation " said intermediate form UPC-unique constructs" in line 6.

There is insufficient antecedent basis for this limitation in the claim.

Claims 2, 4 and 7 are rejected for dependency upon rejected claim1.

Claim 3 recites the limitation "the respective UPC-unique data component" in line 2.

There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "said UPC-unique statements" in line 1. There is

insufficient antecedent basis for this limitation in the claim.

Claims 6 and 7are rejected for dependency upon rejected base claim 5.

Claim Rejections - 35 USC § 101

8.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9.   Claim 27 is rejected under 35 U.S.C 101 because the claimed invention is directed to

non-statutory matter.

Claim 27 is non-statutory as being program *per se* and therefore are not being tangibly

embodied in a manner as to be executable.

Under the Interim Guidelines Section IV (a) computer programs claimed as computer

listings per se, i.e., the descriptions or expressions of the programs are not physical "things."

They are neither computer components nor statutory process, as they are not "acts" being

performed. Such claimed computer programs do not define any structural and functional

interrelationships between the computer program and other claimed elements of a compute

which permit the computer program's functionality to be realized.

Claim Rejections - 35 USC § 102

10.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11.   Claims 1-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Odani et al. (US

6,760,906 B1).

As per claim 1, Odani discloses a method for compiling unified parallel c-language

(UPC) source code containing upc-unique constructs and c-language constructs (e.g. Fig. 2,

element 10 and related text), the method comprising the steps of:

translating said UPC source code into a first intermediate form (in column 5, lines 25-30

"... translating source code into intermediate code ...");

generating proxy form C-language code strings of data components within said

intermediate form UPC-unique constructs (e.g. Fig. 4 and related text);

inserting said generated code strings into said UPC source code to form a combined code

(in column 1, lines 25-31 "... source program and then combines them into a single long ...");

translating said combined code into a second intermediate form, wherein any statements

within said UPC-unique constructs are placed in a C-form with associated program text (in

column 11, lines 20-25 "... translates the internal form code ..."), and surviving UPC-unique

constructs are discarded (in column 9, lines 17-23 ".. and removes the execution boundary ..."

and Fig. 6 and related text); and

converting said second intermediate form to compiled machine code (in column 19, lines

50-55 "... converting the intermediate ..." and e.g. Fig. 2, element 20 and related text).

As per claim 2, Odani discloses the method of claim 1, wherein said code strings are

proxy declarations (in column 22, lines 25-30 "... instructions are ...variable...").

As per claim 3, Odani discloses the method of claim 2, wherein a said proxy declaration includes a name that is a mangled version of a name of a respective UPC-unique data component having a one-to-one mapping (e.g. Fig. 17 and related text).

As per claim 4, Odani discloses the method of claim 1, wherein said associated program text includes a conditional statement (e.g. Fig 13, element S2 and related text and in column 13, lines 60-65 "... if there are several instructions ...").

As per claim 5, Odani discloses the method of claim 4, wherein said UPC-unique constructs are forall statements, and said associated program text includes a conditional statement whose predicates leads to evaluation based upon an affinity test (e.g. Fig 13, element S2 and related text and in column 13, lines 60-65 "... if there are several instructions ...").

As per claim 6, Odani discloses the method of claim 5, wherein, for forall statements having an affininty other than "continue" (e.g. Fig 13, element S2 and related text), the translation step includes sub-traversal of a forall body and determining the context of each static level of nesting (e.g. Fig. 12 and related text).

As per claim 7, Odani discloses the method of claim 6, further comprising the step of incrementing a depth variable in accordance with each said sub-traversal (e.g. Fig. 12 and related text).

As per claim 8, this is another method version of the claimed method discussed above (Claim 1), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 9, this is another method version of the claimed method discussed above (Claim 2), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 10, this is another method version of the claimed method discussed above (Claim 3), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 11, this is another method version of the claimed method discussed above (Claim 4), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 12, this is another method version of the claimed method discussed above (Claim 5), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 13, this is another method version of the claimed method discussed above (Claim 1), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 14, this is another method version of the claimed method discussed above (Claim 2), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 15, this is another method version of the claimed method discussed above (Claim 3), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 16, this is another method version of the claimed method discussed above (Claim 4), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 17, this is another method version of the claimed method discussed above (Claim 5), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 18, this is another method version of the claimed method discussed above (Claim 6), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 19, this is another method version of the claimed method discussed above (Claim 7), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 20, this is a compiler version of the claimed method discussed above (Claim 1), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 21, this is a compiler version of the claimed method discussed above (Claim 2), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 22, this is a compiler version of the claimed method discussed above (Claim 3), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 23, this is a compiler version of the claimed method discussed above (Claim 4), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 24, this is a compiler version of the claimed method discussed above (Claim 5), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 25, this is a compiler version of the claimed method discussed above (Claim 6), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 26, this is a compiler version of the claimed method discussed above (Claim 7), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 27, this is a computer software version of the claimed method discussed above (Claim 8), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

As per claim 28, this is a computer system version of the claimed method discussed above (Claim 1), wherein all claim limitations have been addressed and/or covered in cited areas as set forth above. Thus, accordingly, these claims are also anticipated by Odani.

Conclusion

12.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Odani T. Tecklu whose telephone number is (571) 272-7957. The examiner can normally be reached on M-TH 9:300A - 8:00P.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Isaac Tecklu
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SUPERVISORY PATENT EXAMINER